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Amendment dated January 9, 2004
Reply to Office action dated November 24, 2003

Amendments to the Claims

The following Listing of Claims replaces all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (currently amended): A machine-implemented method of generating a payment indicium, comprising:

generating a corroborative digital token from payment information; and

modulating a base image with a graphical encoding of the corroborative digital token to produce a payment indicium by

dividing the base image into multiple image areas,

segmenting image areas into multiple groups based on pixel values in the image areas, and

encoding the segmented image areas with sets of two-dimensional code patterns to graphically encode the corroborative digital token in the payment indicium, wherein each set of code patterns encodes a respective corresponding group of image areas.

Claim 2 (original): The method of claim 1, wherein the payment information from which the corroborative digital token is generated includes an indication of payment amount.

Claim 3 (original): The method of claim 1, wherein the payment information from which the corroborative digital token is generated includes postal data.

Claim 4 (original): The method of claim 3, wherein the postal data includes destination address information.

Claim 5 (original): The method of claim 1, wherein the base image includes a user-selected image.

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Claim 6 (original): The method of claim 1, wherein the corroborative digital token is generated from a cryptographic transformation of the payment information.

Claim 7 (previously presented): The method of claim 1, wherein the image areas to be encoded are segmented into multiple halftone groups based on gray level values in the images to be encoded, and the segmented image areas are encoded with respective corresponding sets of two-dimensional, coded halftone patterns.

Claim 8 (currently amended): A data processing system for generating a payment indicium, comprising an encoder configured to:

generate a corroborative digital token from payment information; and

modulate a base image with a graphical encoding of the corroborative digital token to produce a payment indicium by

dividing the base image into multiple image areas,

segmenting image areas into multiple groups based on pixel values in the image areas, and

encoding the segmented image areas with sets of two-dimensional code patterns to graphically encode the corroborative digital token in the payment indicium, wherein each set of code patterns encodes a respective corresponding group of image areas.

Claim 9 (currently amended): A machine-implemented method of extracting payment information from a payment indicium, comprising:

extracting a digital token from a payment indicium based upon a comparison of the payment indicium and a base image;

decoding the extracted digital token to produce a decoded message; and

[extracting from the decoded message payment information encoded in the payment indicium.] MPEP 2106 ¶ VI

Claims 10 and 11 (canceled)

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Claim 12 (currently amended): A machine-implemented method of generating a payment indicium with a printer of a particular type, comprising:

identifying the type of the printer;

setting the printer to a printing resolution based on the identified type of the printer The method of claim 10, wherein the selected printing resolution is 100 dots per inch, or greater if the identified printer type is an ink-jet printer; and

printing a payment indicium containing embedded payment information on a printing surface with the printer set to the selected printing resolution.) *MPEP ⟩ 106 Rec. VI*

Claim 13 (currently amended): A machine-implemented method of generating a payment indicium with a printer of a particular type, comprising:

identifying the type of the printer;

setting the printer to a printing resolution based on the identified type of the printer The method of claim 10, wherein the selected printing resolution is 125 dots per inch, or greater if the identified printer type is a laser printer; and

printing a payment indicium containing embedded payment information on a printing surface with the printer set to the selected printing resolution.

Claim 14 (canceled)

Claim 15 (currently amended): A machine-implemented method of generating a payment indicium, comprising:

selecting at least one encoding level based on a payment value specified in the payment information;

encoding payment information into a corroborative digital token with the at least one selected encoding level that varies depending on a payment value specified in the payment information; and

rendering a payment indicium containing the encoded payment information.

Claim 16 (original): The method of claim 15, wherein one or more of the encoding parameters vary with payment value.

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Claim 17 (original): The method of claim 16, wherein an encoding security level parameter varies with payment value.

Claim 18 (original): The method of claim 17, wherein an encoding private key bit length parameter varies with payment value.

Claim 19 (previously presented): The method of claim 16, wherein an encoding robustness level parameter varies with payment value.

Claim 20 (original): The method of claim 19, wherein an error correction code redundancy parameter varies with payment value.

Claim 21 (previously presented): The system of claim 8, wherein image areas to be encoded are segmented into multiple halftone groups based on gray level values in the images to be encoded, and the segmented image areas are encoded with respective corresponding sets of two-dimensional, coded halftone patterns.

Claim 22 (currently amended): A machine-implemented method of generating a payment indicium with a printer of a particular type, comprising The method of claim 10, further comprising:

    generating a corroborative digital token from payment information;

    dividing a base image into multiple image areas;

    segmenting image areas into multiple groups based on pixel values in the image areas; and

    encoding the segmented image areas with sets of two-dimensional code patterns to graphically encode the corroborative digital token in the payment indicium, wherein each set of code patterns encodes a respective corresponding group of image areas;

    identifying the type of the printer;

    setting the printer to a printing resolution based on the identified type of the printer; and

    printing the payment indicium containing embedded payment information on a printing surface with the printer set to the selected printing resolution.

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Claim 23 (previously presented): The method of claim 22, wherein image areas to be encoded are segmented into multiple halftone groups based on gray level values in the images to be encoded, and the segmented image areas are encoded with respective corresponding sets of two-dimensional, coded halftone patterns.

Claim 24 (previously presented): The method of claim 15, further comprising:

dividing a base image into multiple image areas;

segmenting image areas into multiple groups based on pixel values in the image areas; and

encoding the segmented image areas with sets of two-dimensional code patterns to graphically encode the corroborative digital token in the payment indicium, wherein each set of code patterns encodes a respective corresponding group of image areas.

Claim 25 (previously presented): The method of claim 24, wherein image areas to be encoded are segmented into multiple halftone groups based on gray level values in the images to be encoded, and the segmented image areas are encoded with respective corresponding sets of two-dimensional, coded halftone patterns.